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Claims

1. Device (20) for receiving signals in a wireless cellular orthogonal frequency division multiplex (OFDM) system, in which data symbols are transmitted in frequency subcarriers and timeslots, comprising
- 10 channel estimation means (21) for performing a channel estimation on the basis of received pilot symbols, whereby the channel estimation for data symbols between pilot symbols is performed by means of a filter, said filter being selected from a set of filters on the basis of an interference reference value.
- 15 2. Device (20) according to claim 1,
characterized in,
 that said filter is selected from a set of filters on the basis of an estimated carrier to interference ratio.
- 20 3. Device (20) according to claim 2,
characterized in,
 that the estimated carrier to interference ratio at the frequency subcarrier and the timeslot of the data symbol to be channel estimated is used for the filter selection.
- 25 4. Device (20) according to claim 2 or 3,
characterized in,
 that the estimated carrier is a wanted carrier power value at the frequency subcarrier and the timeslot of the data symbol to be channel estimated.
- 30 5. Device (20) according to claim 3 or 4,
characterized in,
 that if said filter to be selected is to be a frequency filter, said filter is further selected on the basis of a difference vector between frequency subcarriers adjacent to the frequency subcarrier of the data symbol to be channel estimated.
- 35 6. Device (20) according to one of the claims 3 to 5,
characterized in,
 that if said filter to be selected is to be a time filter, said filter is further selected on the basis of a Doppler frequency of the estimated channel.

7. Method for channel estimation in a wireless cellular orthogonal frequency division multiplex (OFDM) system, in which data symbols are transmitted in frequency subcarriers and timeslots, whereby
a channel estimation on the basis of received pilot symbols is performed, whereby the
5 channel estimation for data symbols between pilot symbols is performed by means of a filter, said filter being selected from a set of filters on the basis of an interference reference value.
8. Method according to claim 7,
10 characterized in,
that said filter is selected from a set of filters on the basis of an estimated carrier to interference ratio.
9. Method according to claim 8,
15 characterized in,
that the estimated carrier to interference ratio at the frequency subcarrier and the timeslot of the data symbol to be channel estimated is used for the filter selection.
10. Device according to claim 8 or 9,
20 characterized in,
that the estimated carrier is a wanted carrier power value at the frequency subcarrier and the timeslot of the data symbol to be channel estimated.
11. Method according to claim 9 or 10,
25 characterized in,
that if said filter to be selected is a frequency filter, said filter is further selected on the basis of a difference vector between frequency subcarriers adjacent to the frequency subcarrier of the data symbol to be channel estimated.
- 30 12. Method according to one of the claims 9 to 11,
characterized in,
that if said filter to be selected is to be a time filter, said filter is further selected on the basis of a Doppler frequency of the estimated channel.